

★ 1.1 Variables in Algebra ★

VOCAB!

Variable: a letter that represents a number

2x

Variable Expression: a combination of variables, numbers, and operations (+, -, ×, & ÷).

PS- A variable expression does not have an equal sign.

Evaluating the expression: replacing each variable in an expression with a number

Examples of Variable Expressions:

$-2x$ or $-2 \cdot x$ or $-2(x)$

$18 + m$

$27 - z$

$$\frac{3}{p}$$

$2 \times X$ \times

Remember...expressions have no =

$2 \times \times$ $3 \div p$

Evaluate the expression when $y = 3$:

1. $4y$

2. $\frac{12}{y}$

Evaluate the expression when $a = \frac{3}{4}$ & $b = 1.3$:

3. $2a$

4. $3 + a$

5. $\frac{4}{5}a$

$4 \cdot b$
 $4 \cdot 1.3$
 5.2

$1 \frac{4}{5} \cdot \frac{3}{4}$
 $\frac{14}{5} \cdot \frac{3}{4}$

7. $\frac{5.2}{b}$

$\frac{3}{5}$

6. $4b$

7.

Evaluating Simple Interest:

$$I = Prt$$

I = Interest

P = Principle

r = interest rate (percent)

t = time (years)

8. Find the simple interest earned in two years on a deposit of \$870 at 5%.

$$I = P \cdot r \cdot t$$

$$I = 870 \cdot 0.05 \cdot 2$$

$$I = \$87$$

9. Find the simple interest earned in 10 months on a \$275 deposit at 2.5% interest annually.

10. How much time would it take for \$12,000 to make \$1,500 interest at 8%?

Evaluating distance, rate, & time:

$$d = r \cdot t$$

OR

$$r = \frac{d}{t}$$

OR

$$t = \frac{d}{r}$$

When would you use each formula?

~~1. How long will it take you to ride your bike to school and back at an average rate of 6 miles per hour for a distance of 10.5 miles one way?~~

11. Run 8.5 miles
in 52 mins

6.11 MIN per mile